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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND  
INTERFERENCES

Docket No.: ULLEIN

SEP 22 2004  
O I P E  
PATENT & TRADEMARK OFFICE

In re Application of:	)
THOMAS ULLEIN & BOLKO SCHUSEIL	)
Appl. No.: 09/925,013	) Examiner: Johnson, Vicky A.
Filed: August 8, 2001	) Group Art Unit: 3682
For: CHAIN TENSIONER	)

REPLY BRIEF

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450", on September 20, 2004.  
(Date)

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Name of Registered Representative

Signature

9-20-2004  
Date of Signature

Commissioner for Patents  
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Alexandria, VA 22313-1450

S I R:

This reply brief is filed in triplicate in response to the Examiner's Answer,  
mailed July 19, 2004.

## REMARKS

In the Examiner's Answer, the Examiner submitted points of arguments, which appellant wishes to address with this reply brief pursuant to 37 C.F.R. §41.41.

The statement by the Examiner regarding the heading "Related Appeals and Interferences" is incorrect, as appellant's brief of appeal clearly states that "There are no and there have been no related appeals or interferences".

On page 10, first full paragraph, the Examiner noted that "*Claim 1 only states there is a leakage gap for migration of hydraulic fluid from the pressure chamber and a control member reduces the leakage gap in size when "pressure in the pressure chamber increases"*". In interpreting the Stief reference, the Examiner then follows to submit that "*In order for fluid to move from the chamber 9 into the chamber 8, the pressure in chamber 9 must [sic, be] higher than the pressure in chamber 8. Therefore chamber 9 is also a pressure chamber and fluid is flowing from the chamber,*". The Examiner ignores hereby the claim element in appellant's claim 1 that the control member **reduces** the leakage gap in size when pressure in the pressure chamber increases. This, however, is the gist of the present invention to address the problem of chain knocks. By reducing the leakage gap, i.e. reduction of the amount of fluid able to escape from the pressure chamber, the damping behavior of the chain tensioner can be adjusted between soft and hard. In Stief, the non-return (or check) valve 7 opens during extension of the piston 2 (tensioner housing) to allow flow of fluid from chamber 9 into chamber 8, as result

of the lower pressure developing in chamber 8 in relation to the pressure in chamber 9. There is no pressure increase in chamber 9 and there is no reduction in size in the passageway between the chambers 8 and 9.

On page 10, second full paragraph, the Examiner submits that "*The Stief reference fails to disclose a second valve, but a second valve is not claimed in the application of Ullein.*". The Examiner appears to imply that inclusion of a further check valve would thus distinguish over the Stief reference. Indeed, the present invention discloses such a check valve (valve 6) for regulating a flow of fluid from a fluid reservoir into the pressure chamber 5, as the provision of such a check valve is commonly known in the field of chain tensioners. The provision of such a check valve is secondary in the Stief reference and is secondary to the present invention. Thus, to include a limitation relating to this second valve would not properly define the full scope of what the inventors have invented and would rather limit appellant which is not justified in view of the art.

In the paragraph bridging pages 10 and 11 of the Examiner's Answer, the Examiner submits that "*The Stief reference also has two leakage gaps, the passageway between chambers 8 and 9 and the gap 14*". Again, the Examiner ignores the wording of the claims on appeal. Claim 1 sets forth a leakage gap for migration of hydraulic fluid **from** the pressure chamber. Claim 11 (as well as independent claim 32) then sets forth that the leakage gap is subdivided into two portions. What the inventors contemplated is the outflow of fluid **from** the (single) pressure chamber via two leakage gap portions, whereby one leakage gap portion will be closed, when the pressure in the pressure chamber reaches an upper

critical level, so that fluid can escape only through the other leakage portion. In other words, the escape of fluid from the pressure chamber through the overall leakage gap is reduced.

The Examiner's interpretation of the Stief reference is misguided and cannot be reconciled with the present invention because in Stief et al. fluid can only flow through the passageway from chamber 9 **into** chamber 8, whereas the leakage gap 14 is between the chamber 8 and an outside area (area 12). Thus, Stief et al. fail to disclose the provision of two leakage gap portions for escape of fluid from one chamber, namely the pressure chamber.

In the attempt to establish anticipation, the Examiner picked, chose, and combined various portions of disclosure, not directly related to each other by the teachings of reference, in order to find that application claim reads on that reference. Ex parte, BdPatApp&Int (unpub), 12.19/03, 71 USPQ2d 1313. The Stief reference clearly sets forth in col. 4 lines 7-10, the purpose of the non-return valve 7 which has no relationship to the leakage gap 14. As set forth in col. 4, lines 10 to 13, *"The hydraulic oil contained in the high pressure chamber 8 flows out of the tensioner housing 2 through a leak gap 14 between the piston 1 and the tensioner housing 2 during retraction."* That is the extent of the description in the Stief reference in this respect. In other words, Stief et al. contemplate only a single leakage gap for escape of fluid from the pressure chamber.

In summary: The Stief reference describes the provision of a check valve to allow inflow from an oil reservoir 9 into pressure chamber 8 during extension of the piston 2 (col. 4, lines 7-9), and the provision of a leakage gap 14 to allow escape

of fluid from the pressure chamber 8 during retraction (no valve or control member is involved here). The present invention describes the provision of a control member (valve 14) to reduce the size of the leakage gap, when a pressure in the pressure chamber increases. Thus, the Stief reference fails to teach or suggest the provision of a control member to regulate a fluid flow out of the pressure chamber 8.

For the foregoing reasons and the reasons stated in Appellant's Brief of Appeal, it is respectfully requested to overrule the Examiner's rejections.

Respectfully submitted,

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